

Notice of Allowability

Application No.

09/692,401

Examiner

F. Pierre VanderVegt

Applicant(s)

HEIDECKER ET AL.

Art Unit

1644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 3/8/04.
2. ☒ The allowed claim(s) is/are 1-4, 42, 72-74 and 78-85.
3. ☒ The drawings filed on 19 October 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 07282004.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Art Unit: 1644

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John VanAmsterdam on July 28, 2004.

The application has been amended as follows:

IN THE CLAIMS:

In claim 1, line 1, the term "comprising" has been replaced by --consisting of--.

In claim 2, line 1, the term "comprising" has been replaced by --consisting of--.

In claim 3, line 1, the term "comprising" has been replaced by --consisting of--.

Claim 7 has been canceled.

Claim 8 has been canceled.

In claim 42, line 1, the term "vaccine" has been deleted.

Claim 43 has been canceled.

Claims 58-71 have been canceled.

In claim 72, line 1, the term "vaccine" has been deleted.

In claim 73, line 1, the term "vaccine" has been deleted.

In claim 74, line 1, the term "vaccine" has been deleted.

Claims 75-77 have been canceled.

The following new claims, corresponding to previous claims 58-65 and having additional support in the instant specification at lines 24-32 of page 11, have been added:

--78. A non-hydrolzable isolated MAGE-A12 HLA class I-binding peptide consisting of the amino acid sequence of SEQ ID NO: 6, wherein said sequence comprises one or more D-amino acid residues.

79. A non-hydrolzable isolated MAGE-A12 HLA class I-binding peptide consisting of the amino acid sequence of SEQ ID NO: 6, wherein said sequence comprises one or more non-hydrolzable peptide bonds selected from the group consisting of a -psi[CH₂NH]-reduced amide peptide bond, a -psi[COCH₂]-ketomethylene peptide bond, a -psi[CH(CN)NH]-(cyanomethylene)amino peptide bond, a -psi[CH₂CH(OH)]-hydroxyethylene peptide bond, a -psi[CH₂O]-peptide bond, and a -psi[CH₂S]-thiomethylene peptide bond.

80. A non-hydrolzable isolated MAGE-A12 HLA-C binding peptide consisting of the amino acid sequence of SEQ ID NO: 4, wherein said sequence comprises one or more D-amino acid residues.

81. A non-hydrolzable isolated MAGE-A12 HLA-C binding peptide consisting of the amino acid sequence of SEQ ID NO: 4, wherein said sequence comprises one or more non-hydrolzable peptide bonds selected from the group consisting of a -psi[CH₂NH]-reduced amide peptide bond, a -psi[COCH₂]-ketomethylene peptide bond, a -psi[CH(CN)NH]-(cyanomethylene)amino peptide bond, a -psi[CH₂CH(OH)]-hydroxyethylene peptide bond, a -psi[CH₂O]-peptide bond, and a -psi[CH₂S]-thiomethylene peptide bond.

82. A non-hydrolzable isolated MAGE-A12 HLA-C binding peptide consisting of the amino acid sequence of SEQ ID NO: 5, wherein said sequence comprises one or more D-amino acid residues.

Art Unit: 1644

83. A non-hydrolzable isolated MAGE-A12 HLA-C binding peptide consisting of the amino acid sequence of SEQ ID NO: 5, wherein said sequence comprises one or more non-hydrolzable peptide bonds selected from the group consisting of a $-\psi[\text{CH}_2\text{NH}]$ -reduced amide peptide bond, a $-\psi[\text{COCH}_2]$ -ketomethylene peptide bond, a $-\psi[\text{CH}(\text{CN})\text{NH}]$ -(cyanomethylene)amino peptide bond, a $-\psi[\text{CH}_2\text{CH}(\text{OH})]$ -hydroxyethylene peptide bond, a $-\psi[\text{CH}_2\text{O}]$ -peptide bond, and a $-\psi[\text{CH}_2\text{S}]$ -thiomethylene peptide bond.

84. A non-hydrolzable isolated MAGE-A12 HLA class I-binding peptide consisting of a fragment of the amino acid sequence of SEQ ID NO: 2 that binds HLA Cw*07, wherein the fragment comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 5 and SEQ ID NO: 6, wherein said sequence comprises one or more D-amino acid residues.

85. A non-hydrolzable isolated MAGE-A12 HLA class I-binding peptide consisting of a fragment of the amino acid sequence of SEQ ID NO: 2 that binds HLA Cw*07, wherein the fragment comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 5 and SEQ ID NO: 6, wherein said sequence comprises one or more non-hydrolzable peptide bonds selected from the group consisting of a $-\psi[\text{CH}_2\text{NH}]$ -reduced amide peptide bond, a $-\psi[\text{COCH}_2]$ -ketomethylene peptide bond, a $-\psi[\text{CH}(\text{CN})\text{NH}]$ -(cyanomethylene)amino peptide bond, a $-\psi[\text{CH}_2\text{CH}(\text{OH})]$ -hydroxyethylene peptide bond, a $-\psi[\text{CH}_2\text{O}]$ -peptide bond, and a $-\psi[\text{CH}_2\text{S}]$ -thiomethylene peptide bond.--

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Pierre VanderVegt whose telephone number is (571) 272-0852. The examiner can normally be reached on M-Th 6:30-4:00; Alternate Fridays 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (571) 272-0841. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

F. Pierre VanderVegt, Ph.D.
Patent Examiner
July 28, 2004



CHRISTINA CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600